

# Universal Biotube® Pump Vaults

**For use with Orengo 4-in. Submersible Effluent Pumps**

## Applications

Orengo Biotube® Pump Vaults are used to filter effluent that is pumped from septic tanks or separate dosing tanks in STEP systems and onsite wastewater treatment systems. They remove two-thirds of suspended solids, on average. Pump vaults house a Biotube effluent filter and one or two Orengo high-head effluent pumps

Biotube Pump Vaults can be used in single-compartment septic tanks with flows up to 40 gpm. For flows greater than 40 gpm, Orengo recommends a double-compartment septic tank or separate dosing tank.

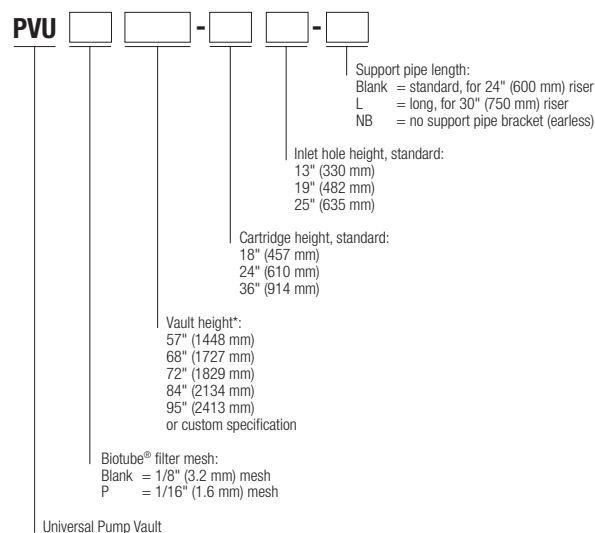
## General

The Orengo Biotube Pump Vault includes a molded polyethylene housing with an internal Biotube filter cartridge constructed of polypropylene and PVC. Schedule 80 PVC support pipes are included to suspend the vault in a tank opening. "Earless" 68-inch vaults, which rest on the bottom of the tank instead of on support pipes, are also available. The filter cartridge can be removed without pulling the pump or the vault. Effluent enters through inlet holes around the perimeter of the Biotube vault and flows through the Biotubes to the external flow inducer. The external flow inducer accommodates one or two pumps. Orengo Biotube Pump Vaults are covered by U.S. patents #4,439,323 and 5,492,635.

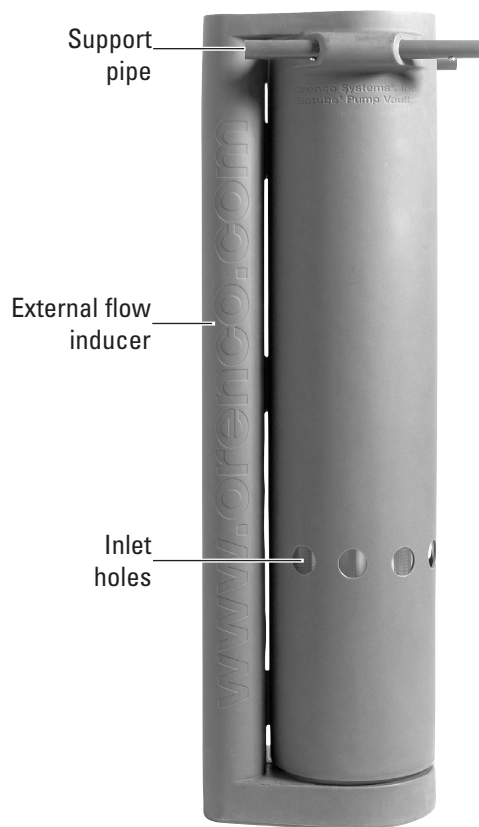
## Standard Models

PVU57-1819, PVU68-2419, PVU84-2419, PVU95-3625.

## Nomenclature



\* Custom heights from 42" to 135" available



Side view

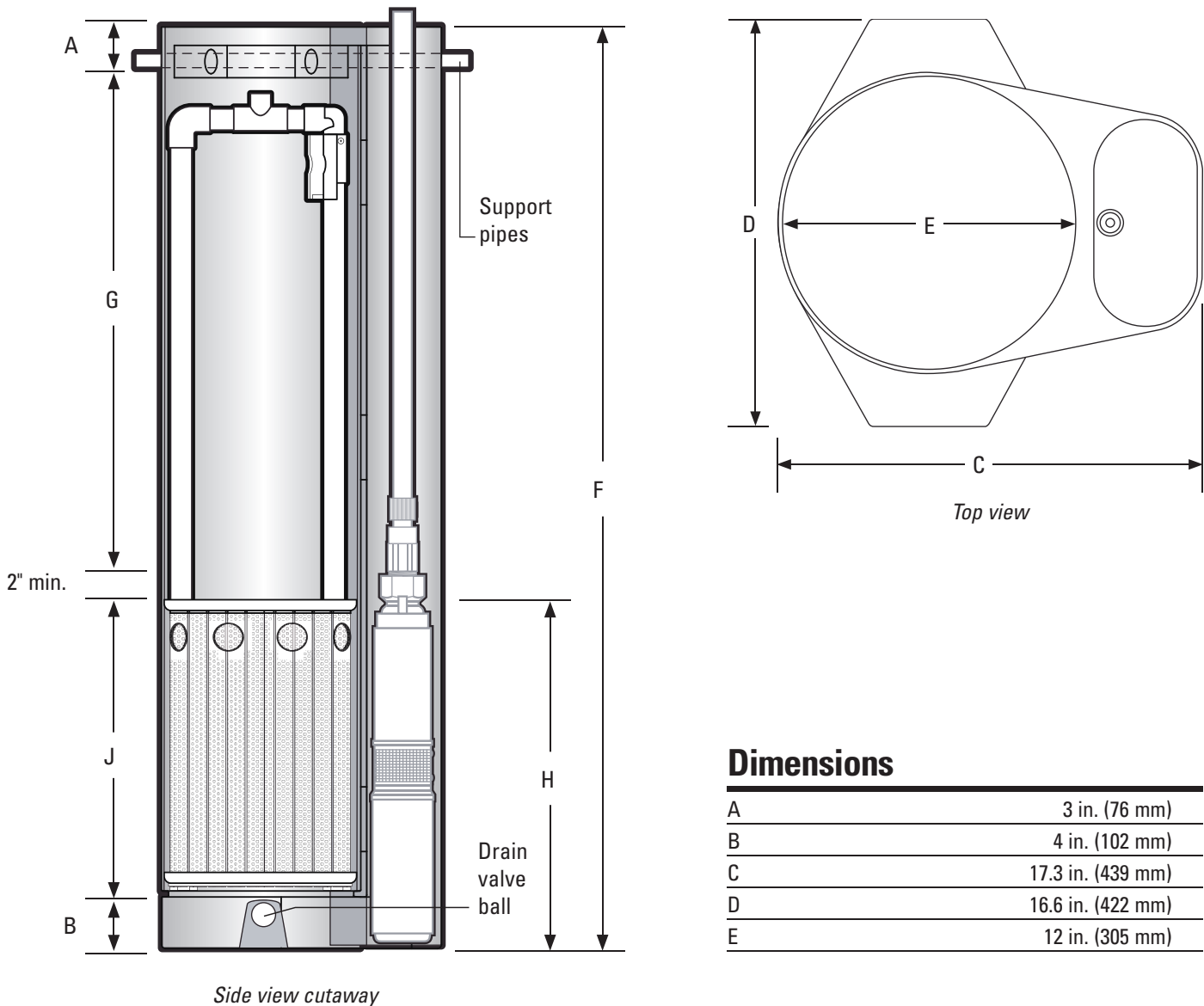
## Materials of Construction

Support pipe:	Schedule 80 PVC
Biotube® vault:	Polyethylene
Biotube filter cartridge:	Polypropylene/PVC
Float stem:	Schedule 40 PVC
Drain valve ball:	Polypropylene

## Tank Access and Riser Diameter

Biotube® Series	Tank Access Diameter (Minimum)	Tank Access Diameter (Recommended)	Riser Diameter (Minimum)
PVU with Simplex Pumps	19 in. (483 mm)	20 in. (508 mm)	24 in. (610 mm)
PVU with Duplex Pumps	19 in. (483 mm)	20 in. (508 mm)	30 in. (762 mm)

# Universal Biotube® Pump Vaults (continued)



## Dimensions

A	3 in. (76 mm)
B	4 in. (102 mm)
C	17.3 in. (439 mm)
D	16.6 in. (422 mm)
E	12 in. (305 mm)

## Specifications

Model	PVU57-1819	PVU68-2419	PVU84-2419	PVU95-3625
Vault height (F)	57 in. (1448 mm)	68 in. (1727 mm)	84 in. (1727 mm)	95 in. (2413 mm)
Lowest float setting point (G)	29 in. (737 mm)	35 in. (889 mm)	51 in. (1295 mm)	50 in. (1270 mm)
Inlet hole height (H)*	19 in. (483 mm)	19 in. (483 mm)	19 in. (482 mm)	25 in. (635 mm)
Biotube® cartridge height (J)	18 in. (457 mm)	24 in. (610 mm)	24 in. (610 mm)	36 in. (914 mm)
Biotube mesh opening**	1/8 in. (3 mm)	1/8 in. (3 mm)	1/8 in. (3 mm)	1/8 in. (3mm)
Filter flow area	4.4 ft <sup>2</sup> (0.4 m <sup>2</sup> )	5.9 ft <sup>2</sup> (0.5 m <sup>2</sup> )	5.9 ft <sup>2</sup> (0.5 m <sup>2</sup> )	9.0 ft <sup>2</sup> (0.84 m <sup>2</sup> )
Filter surface area	14.5 ft <sup>2</sup> (1.35 m <sup>2</sup> )	19.7 ft <sup>2</sup> (1.83 m <sup>2</sup> )	19.7 ft <sup>2</sup> (1.83 m <sup>2</sup> )	30 ft <sup>2</sup> (2.79m <sup>2</sup> )
Maximum flow rate	140 gpm (8.8 L/sec)	140 gpm (8.8 L/sec)	140 gpm (8.8 L/sec)	140 gpm (8.8 L/sec)

\* May vary depending on the configuration of the tank.

\*\* 1/16-in. (1.6 mm) Biotube® mesh opening available on request.